```
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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


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 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2           "Ask CAS" for self-help around the clock
 NEWS  3  May 12   EXTEND option available in structure searching
 NEWS  4  May 12   Polymer links for the POLYLINK command completed in REGISTRY
 NEWS  5  May 27   New UPM (Update Code Maximum) field for more efficient patent
                   SDIs in CAplus
 NEWS  6  May 27   CAplus super roles and document types searchable in REGISTRY
 NEWS  7  Jun 28   Additional enzyme-catalyzed reactions added to CASREACT
 NEWS  8  Jun 28   ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHENG,
                   and WATER from CSA now available on STN(R)
 NEWS  9  Jul 12   BEILSTEIN enhanced with new display and select options,
                   resulting in a closer connection to BABS
 NEWS 10  Jul 30   BEILSTEIN on STN workshop to be held August 24 in conjunction
                   with the 228th ACS National Meeting
 NEWS 11  AUG 02   IFIPAT/IFIUDB/IFICDB reloaded with new search and display
                   fields
 NEWS 12  AUG 02   CAplus and CA patent records enhanced with European and Japan
                   Patent Office Classifications
 NEWS 13  AUG 02   STN User Update to be held August 22 in conjunction with the
                   228th ACS National Meeting
 NEWS 14  AUG 02   The Analysis Edition of STN Express with Discover!
                   (Version 7.01 for Windows) now available
 NEWS 15  AUG 04   Pricing for the Save Answers for SciFinder Wizard within
                   STN Express with Discover! will change September 1, 2004
 NEWS 16  AUG 27   BIOCOMMERCE: Changes and enhancements to content coverage
 NEWS 17  AUG 27   BIOTECHABS/BIOTECHDS: Two new display fields added for legal
                   status data from INPADOC
 NEWS 18  SEP 01   INPADOC: New family current-awareness alert (SDI) available
 NEWS 19  SEP 01   New pricing for the Save Answers for SciFinder Wizard within
                   STN Express with Discover!
 NEWS 20  SEP 01   New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
 NEWS 21  SEP 14   STN Patent Forum to be held October 13, 2004, in Iselin, NJ

 NEWS EXPRESS  JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
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 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.
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* * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 15:04:54 ON 16 SEP 2004

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 15:05:03 ON 16 SEP 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 15 SEP 2004 HIGHEST RN 745743-57-1
DICTIONARY FILE UPDATES: 15 SEP 2004 HIGHEST RN 745743-57-1

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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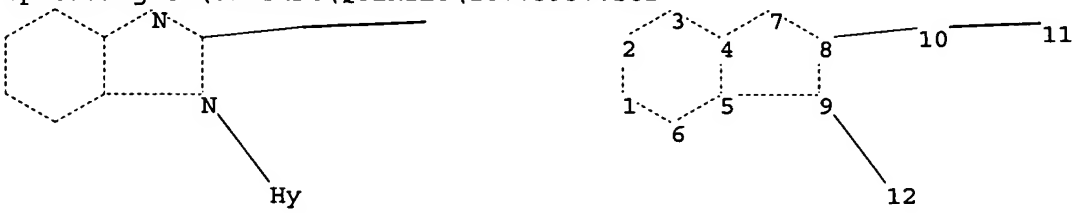
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\STNEXP4\QUERIES\10773937.str



chain nodes :
10 12
ring nodes :
1 2 3 4 5 6 7 8 9
ring/chain nodes :
11
chain bonds :
8-10 9-12 10-11
ring bonds :
1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-9 7-8 8-9

```
exact/norm bonds :
1-2  1-6  2-3  3-4  4-5  4-7  5-6  5-9  7-8  8-9  9-12
exact bonds :
8-10  10-11
isolated ring systems :
containing 1 :


Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:CLASS
11:CLASS  12:Atom
Generic attributes :
12:
Saturation              : Unsaturated
Number of Carbon Atoms  : less than 7
Type of Ring System     : Monocyclic



L1      STRUCTURE UPLOADED

=> dis l1
L1 HAS NO ANSWERS
L1                STR
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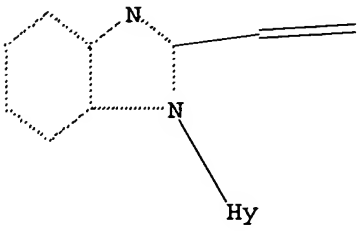


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Structure attributes must be viewed using STN Express query preparation.


=> s l1 sam
SAMPLE SEARCH INITIATED 15:05:28 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   2862 TO ITERATE

 34.9% PROCESSED    1000 ITERATIONS                                  6 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        54032 TO    60448
PROJECTED ANSWERS:              95 TO      591

L2            6 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 15:05:33 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -  55682 TO ITERATE

100.0% PROCESSED   55682 ITERATIONS                            227 ANSWERS
```

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SEARCH TIME: 00.00.01

L3          227 SEA SSS FUL L1

=> file hcaplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.44     156.07

FILE 'HCAPLUS' ENTERED AT 15:05:55 ON 16 SEP 2004
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FILE COVERS 1907 - 16 Sep 2004  VOL 141 ISS 12
FILE LAST UPDATED: 15 Sep 2004  (20040915/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> s l3
L4          10 L3

=> s l4 and pd<march 1998
      18823074 PD<MARCH 1998
                  (PD<19980300)
L5           8 L4 AND PD<MARCH 1998

=> dis l5 1-8 bib abs hitstr

L5   ANSWER 1 OF 8  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   1997:178231  HCAPLUS
DN   126:178961
TI   Silver halide color photographic material containing sensitizing dye and
     magenta coupler
IN   Nomya, Makoto; Ookusa, Hiroshi; Kawashima, Yasuhiko
PA   Konishiroku Photo Ind, Japan
SO   Jpn. Kokai Tokkyo Koho, 37 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
PI   JP 08328217          A2    19961213    JP 1995-136712          19950602 <--
PRAI JP 1995-136712             19950602
GI
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title material, comprising a support coated with ≥1 photog. constituent layers, contains ≥1 sensitizing dye I [R11 = sulfoethyl; R12 = (substituted) alkyl, (substituted) alkenyl, (substituted) alkynyl; R13 = H, (substituted) alkyl, (substituted) aryl; Z12 = atoms required to form a (substituted) benzoxazole or naphthoxazole nucleus; X1 = counter ion; m = number required to control the charge of the mol.], ≥1 other sensitizing dye II [R21-24 = (substituted) alkyl, (substituted) alkenyl, (substituted) alkynyl, (substituted) aryl, (substituted) heterocycle; V, W, X, Y = H, electron-attractive group; X2 = counter ion; n = number required to control the charge of the mol.], ≥1 coupler III (R31 = H, substituent; R32 = Cl, alkoxy; R33 = substituent; R34-38 = H, halo; p = 1-5), and optional ≥1 compound IV (R41, R42 = H, alkyl, alkenyl, alkynyl, aryl, heterocycle; R43-45 H, substituent, R41 and R42, R43 and R44, and R44 and R45 may form a ring) in ≥1 of the layers. The material shows high sensitivity, low fog, and good storage stability.

IT **187037-38-3**
RL: DEV (Device component use); USES (Uses)
(silver halide color photog. material containing sensitizing dye, magenta coupler, and optional pyridine derivative)

RN 187037-38-3 HCAPLUS

CN 1H-Benzimidazolium, 2-[3-[1,3-dihydro-5-(propoxycarbonyl)-1-(2-pyridinyl)-3-(3-sulfopropyl)-2H-benzimidazol-2-ylidene]-1-propenyl]-5-(propoxycarbonyl)-1-(2-pyridinyl)-3-(3-sulfopropyl)-, inner salt, compd. with pyridine (1:1) (9CI) (CA INDEX NAME)

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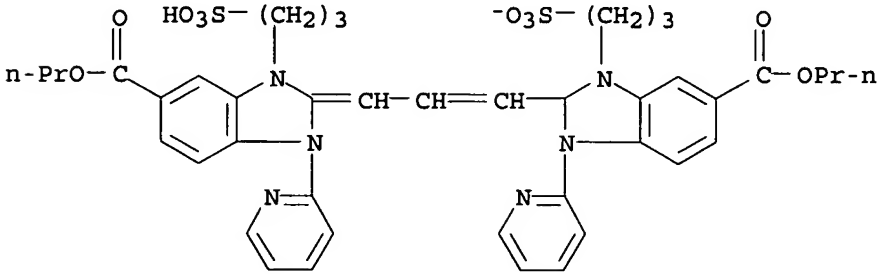
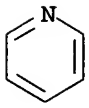
CRN 187037-37-2
CMF C41 H44 N6 O10 S2



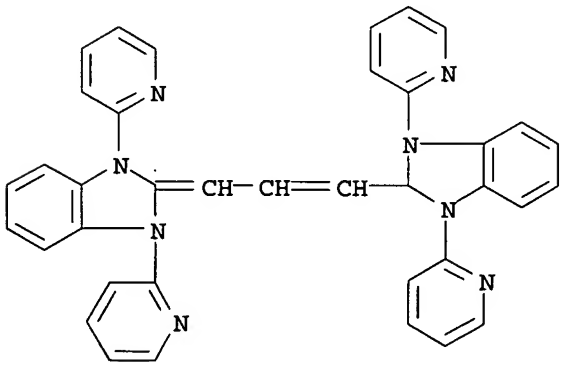
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

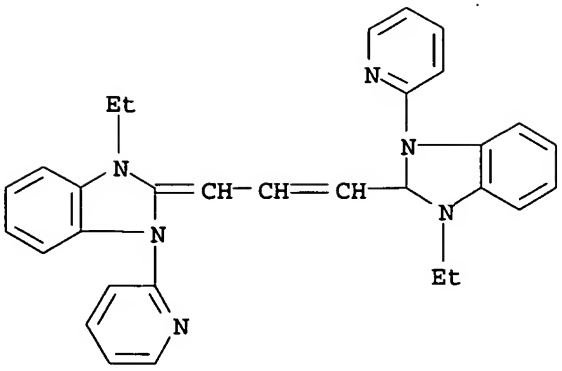
CRN 110-86-1
CMF C5 H5 N



L5 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1978:433837 HCAPLUS
DN 89:33837
TI Structure of molecules of polymethine dyes and their laser properties
AU Przhonskaya, O. V.; Tikhonov, E. A.
CS USSR
SO Optika i Spektroskopiya (**1978**), 44(3), 480-5
CODEN: OPSPAM; ISSN: 0030-4034
DT Journal
LA Russian
AB The results are presented of an investigation directed to the optimization of parameters of the active medium of lasers based on sym. polymethine dyes. The structural elements of these mols. which affect the value of the Stokes shift of the maximum of the absorption and luminescence bands, their halfwidths, and quantum yields were determined The conclusions obtained permit the synthesis of a dye with a lower threshold and an increase in the range of tuning in a dispersion resonator.
IT **47857-88-5 66918-06-7**
RL: PRP (Properties)
(laser properties of)
RN 47857-88-5 HCAPLUS
CN 1H-Benzimidazolium, 2-[3-(1,3-dihydro-1,3-di-2-pyridinyl-2H-benzimidazol-2-ylidene)-1-propenyl]-1,3-di-2-pyridinyl- (9CI) (CA INDEX NAME)

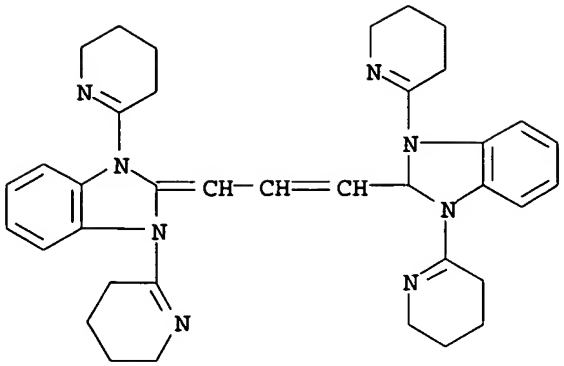


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 66918-06-7 HCAPLUS
CN 1H-Benzimidazolium, 1-ethyl-2-[3-[1-ethyl-1,3-dihydro-3-(2-pyridinyl)-2H-benzimidazol-2-ylidene]-1-propenyl]-3-(2-pyridinyl)- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

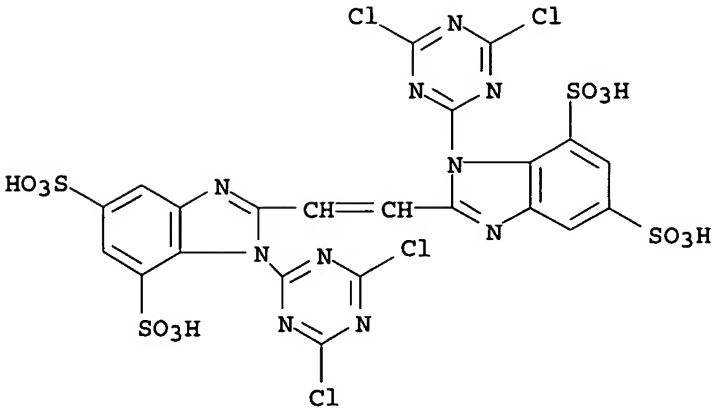
L5 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1975:24123 HCAPLUS
DN 82:24123
TI Two-photon absorption spectra of organic dye molecules
AU Aslanidi, E. B.; Tikhonov, E. A.
CS USSR
SO Optika i Spektroskopiya (**1974**), 37(4), 784-5
CODEN: OPSPAM; ISSN: 0030-4034
DT Journal
LA Russian
AB One- and 2-photon absorption spectra were given of Rhodamine 6G and imidocarbocyanine in alc. solns. by using the fluorescence method. The 2-photon absorption spectra of the both compds. showed 2 principal maximum, one coinciding with the vibronic transition of the short-wave wing of the long-wave one-photon absorption band and the other falling upon the region of one-photon transition to higher singlet states. The spectral dependence of 2-photon absorption probability was qual. discussed.
IT **54375-46-1**
RL: PRP (Properties)
(photon absorption by, single and multi-)
RN 54375-46-1 HCAPLUS
CN 1H-Benzimidazolium, 2-[3-[1,3-dihydro-1,3-bis(3,4,5,6-tetrahydro-2-pyridinyl)-2H-benzimidazol-2-ylidene]-1-propenyl]-1,3-bis(3,4,5,6-tetrahydro-2-pyridinyl)-, iodide (9CI) (CA INDEX NAME)



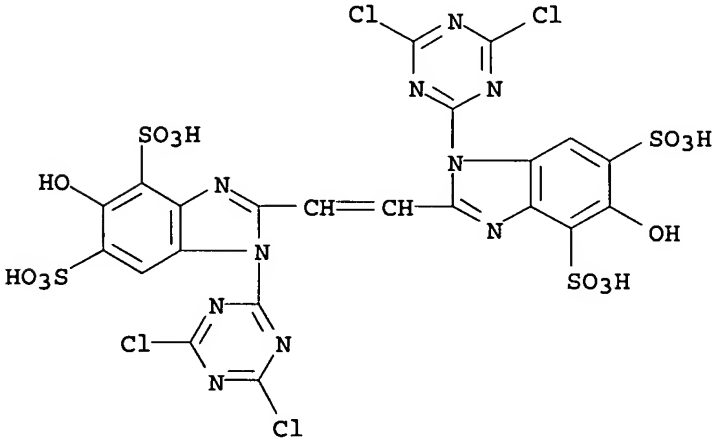
● I^-

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

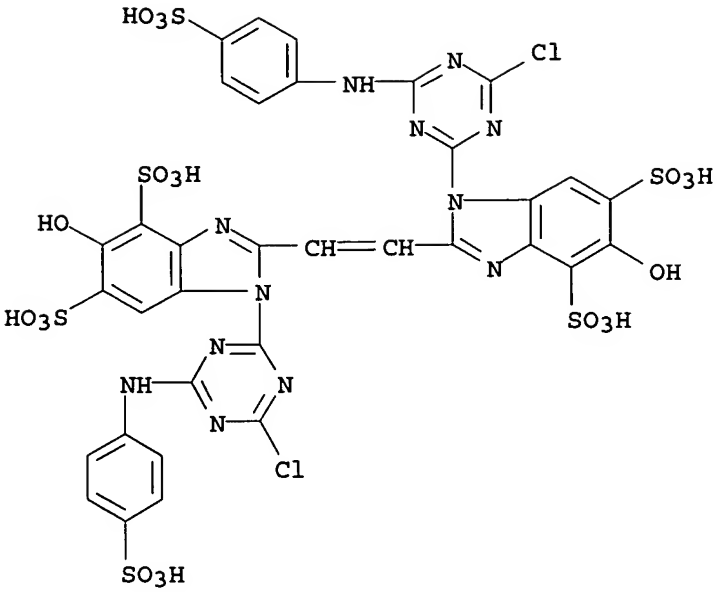
L5 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1974:522753 HCAPLUS
DN 81:122753
TI Comparative studies on washable and permanent optical brighteners derived from benzimidazole. I. Preparation of some benzimidazole derivatives and study of their properties
AU Salem, A. S. G.; Shawki, M.; Farag, A. A.; Selim, M. H.
CS Chem. Eng. Dep., Univ. Alexandria, Alexandria, Egypt
SO Kolorisztikai Ertesito (**1974**), 16(3/4), 46-57
CODEN: KOERA9; ISSN: 0023-2939
DT Journal
LA English
AB Benzimidazole compds. [I, R = OH, SO3H; R1,R2 = H, SO3H; R3 = H, Me, dichlorotriazinyl, chloro(sulfoanilino)triazinyl] were prepared, their solution in H2O, stability of the triazinyl derivs. in alkaline medium, and their rates of exhaustion were determined and showed that the application of I as fluorescent whiteners is possible. Thus, I(R = R1 = R2 = R3 = H) was dissolved in H2SO4 containing oleum and heated at 60.deg. for 45 min to give fluorescent whitener I(R = 5-SO3H) [52736-69-3]. The other I were similarly prepared
IT **52736-66-0P 52736-67-1P 52736-68-2P**
52871-94-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 52736-66-0 HCAPLUS
CN 1H-Benzimidazole-5,7-disulfonic acid, 2,2'-(1,2-ethenediyl)bis[1-(4,6-dichloro-1,3,5-triazin-2-yl)- (9CI) (CA INDEX NAME)



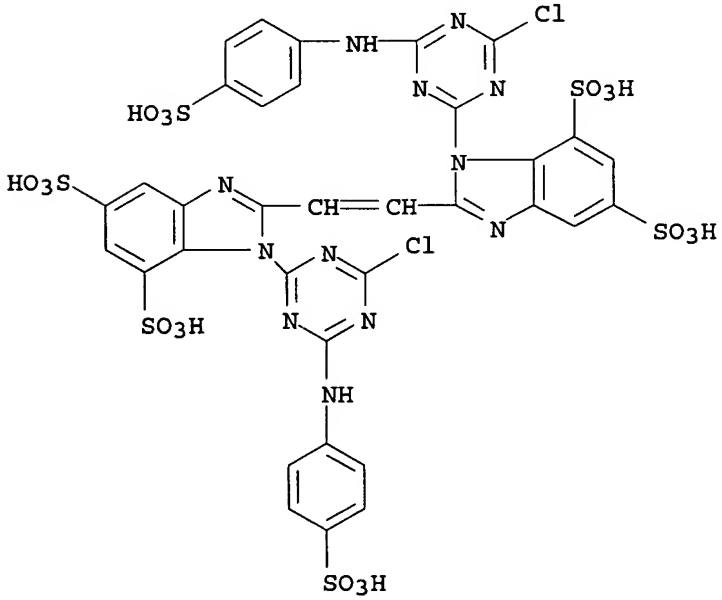
RN 52736-67-1 HCAPLUS
CN 1H-Benzimidazole-4,6-disulfonic acid, 2,2'-(1,2-ethenediyl)bis[1-(4,6-dichloro-1,3,5-triazin-2-yl)-5-hydroxy- (9CI) (CA INDEX NAME)



RN 52736-68-2 HCAPLUS
CN 1H-Benzimidazole-4,6-disulfonic acid, 2,2'-(1,2-ethenediyl)bis[1-[4-chloro-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]-5-hydroxy- (9CI) (CA INDEX NAME)



RN 52871-94-0 HCAPLUS
CN 1H-Benzimidazole-5,7-disulfonic acid, 2,2'-(1,2-ethenediyl)bis[1-[4-chloro-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]- (9CI) (CA INDEX NAME)



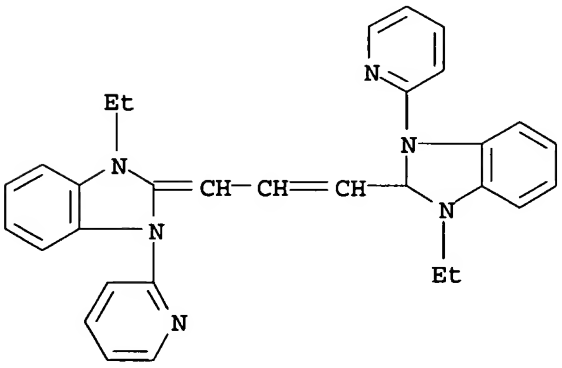
L5 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1972:541468 HCAPLUS
DN 77:141468
TI Synthesis of benzimidazole derivatives. V. Pyridylbenzimidazoles and cyanine dyes obtained from them
AU Zubarovskii, V. M.; Lepikhova, S. V.
CS Inst. Org. Khim., Kiev, USSR

SO Khimiya Geterotsiklicheskikh Soedinenii (**1972**), (5), 687-90
CODEN: KGSSAQ; ISSN: 0132-6244
DT Journal
LA Russian

AB Reacting N-ethyl-4-(2-pyridyl)-1,2-phenylenediamine with AcCl in PhMe solution gave 1-ethyl-2-methyl-5-(2-pyridyl)benzimidazole (I) [36635-98-0]. I was iodoethylated to 1,3-diethyl-2-methyl-5-(2-pyridyl)benzimidazolium monoiodide (II) [36635-99-1]. II was reacted with 3-ethyl-5-acetanilidomethylenerhodanine in HCONH2 containing NEt3 to give 3-ethyl-5-[2-[1,3-diethyl-5-(2-pyridyl)-2-benzimidazolinylidene]ethylidene]thiazolidine-2-thione-4-one (III) [36636-00-7] which absorbs light strongly at 521 nm. Similarly starting with substituted o-phenylenediamines other title dyes, such as IV which absorbs at 536 nm, were prepared

IT **38794-13-7P 38794-14-8P 38794-15-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 38794-13-7 HCAPLUS
CN 1H-Benzimidazolium, 1-ethyl-2-[3-[1-ethyl-1,3-dihydro-3-(2-pyridinyl)-2H-benzimidazol-2-ylidene]-1-propenyl]-3-(2-pyridinyl)-, iodide (9CI) (CA INDEX NAME)



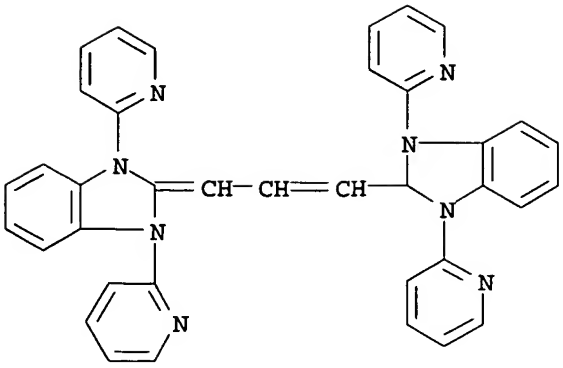
● I⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 38794-14-8 HCAPLUS
CN 1H-Benzimidazolium, 2-[3-(1,3-dihydro-1,3-di-2-pyridinyl-2H-benzimidazol-2-ylidene)-1-propenyl]-1,3-di-2-pyridinyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

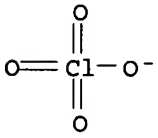
CRN 47857-88-5
CMF C37 H27 N8



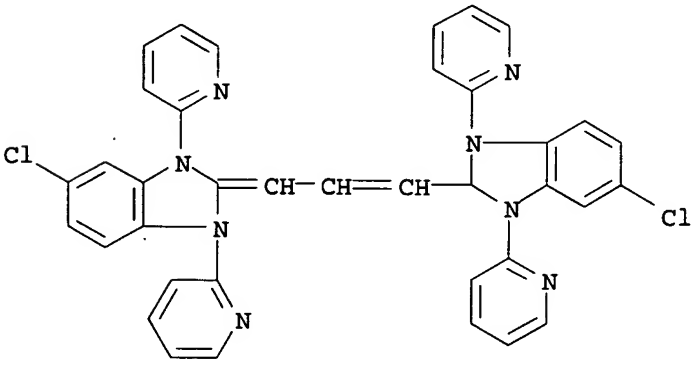
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 14797-73-0
CMF Cl O4



RN 38794-15-9 HCAPLUS
CN 1H-Benzimidazolium, 5-chloro-2-[3-(5-chloro-1,3-dihydro-1,3-di-2-pyridinyl-2H-benzimidazol-2-ylidene)-1-propenyl]-1,3-di-2-pyridinyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

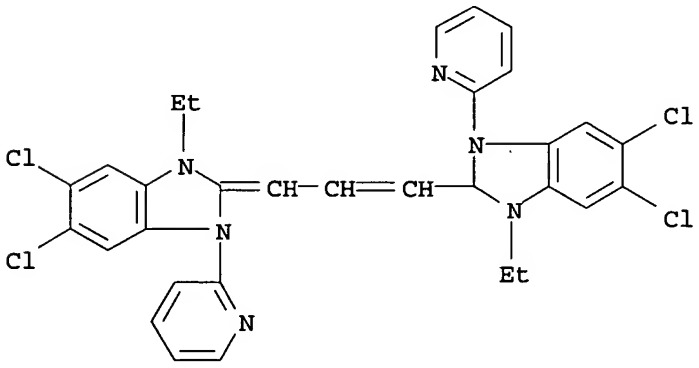
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L5 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1969:526007 HCAPLUS
DN 71:126007
TI Benzimidazole carbocyanines
IN Gandino, Mario; Merli, Paolo; Turilli, Oreste
PA Ferrania Societa per Azioni
SO U.S., 4 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3443955	A	19690513	US 1966-551512	19660520 <--
	BE 678673	A	19660901	BE 1966-678673	19660330 <--
PRAI	IT 1965-17465		19650521		

GI For diagram(s), see printed CA Issue.
AB The title compds. (I) are prepared from II. Thus, 2-aminopyridine (QNH2) is treated with 2,4,5-Cl3C6H2NO2 to give 4,5,2-Cl2(O2N)C6H2NHQ (m. 156°) which is converted to 5,6-dichloro-2-methyl - 1 - (2-pyridyl)benzimidazole (m. 127-9°) and quaternized to give II. A mixture of 2.17 g. II, 25 ml. PhNO2, and 5 ml. HC(OEt)3 is refluxed for 3 hrs. to give I (X = NQ, R = R' = Cl, Y = iodine], λmax 5240 A. II and 2-(formylmethylene)-3-ethyl - 5-methoxybenzoselenazole give I (X = Se, R = OMe, R1 = H, Y = ClO4), λmax 5470 A. Similarly prepared are the following, I (Y = iodine) [X, R, R1, and λmax (A.) given]: S, Me, Me, 5390; Se, Me, Me, 5430; S, Cl, H, 5300; Se, Me, H, 5380; S, Me, H, 5350. Similarly were prepared III (λmax 4720 A.) and IV, λmax 4970 A.
IT **18018-26-3P 18018-27-4P 18018-29-6P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)
RN 18018-26-3 HCAPLUS
CN Benzimidazolium, 5,6-dichloro-2-[3-[5,6-dichloro-1-ethyl-3-(2-pyridyl)-2-benzimidazolinylidene]propenyl]-3-ethyl-1-(2-pyridyl)-, iodide (8CI) (CA INDEX NAME)



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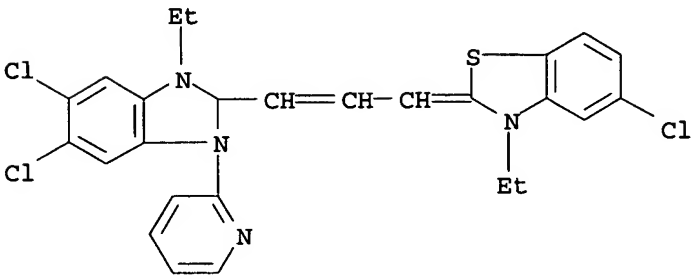
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 18018-27-4 HCAPLUS
CN Benzimidazolium, 5,6-dichloro-2-[3-(5-chloro-3-ethyl-2-

benzothiazolinylidene)propenyl]-3-ethyl-1-(2-pyridyl)-, iodide (8CI) (CA INDEX NAME)



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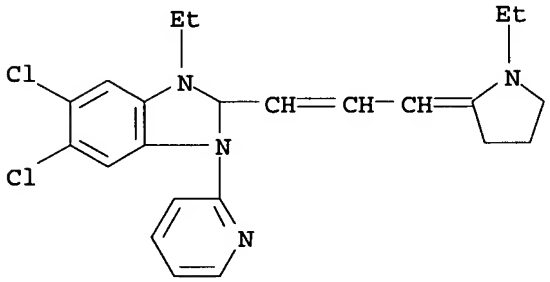
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 18018-29-6 HCAPLUS

CN Benzimidazolium, 5,6-dichloro-3-ethyl-2-[3-(1-ethyl-2-pyrrolidinylidene)propenyl]-1-(2-pyridyl)-, iodide (8CI) (CA INDEX NAME)



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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L5 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1969:440236 HCAPLUS

DN 71:40236

TI Benzimidazacarbocyanines

IN Gandino, Mario; Baldassarri, Agostino

PA Ferrania Societa per Azioni

SO Fr., 4 pp.
CODEN: FRXXAK

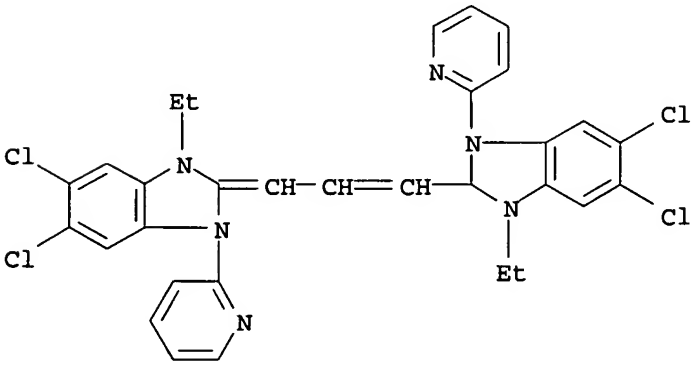
DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 1525450		19680517		<--

DE 1569845 DE
GB 1191534 GB
PRAI IT 19660518
GI For diagram(s), see printed CA Issue.
AB The title dyes (I) are prepared in improved yield and (or) rate by condensation with HC(OEt)3 in 1-C10H7Cl. Thus, 3 g. 1,3-diethyl-2-methyl-5,6-dichlorobenzimidazolium iodide was dissolved in 30 ml. 1-C10H7Cl, treated with 3 ml. HC(OEt)3, refluxed for 30 min., cooled, diluted with Et2O, washed (Et2O) until the washings were colorless, and washed on the filter with H2O at 50°, followed by MeOH, to give 1 g. (40%) I (R1 = Et, R2 = H, R3 = R4 = Cl, X = iodide), small bronzy prisms (MeOH), λmaximum (EtOH) 517 mμ. A 2-hr. reaction in PhNO2 gave only 30% yield. Similarly obtained were the following I [R1, R2, R3, R4, X, reflux time in hrs., color (solvent), λmaximum in mμ, % yield, and % yield in Ph-NO2 (time in hrs.) given]: Et, H, H, Cl, iodide, 0.5, brilliant red (EtOH), 507, 32, 24 (1.5); Et, H, H, Ac, iodide, 1, green (EtOH), 521, 30, 24 (2); AcOCH2CH2, H, Cl, Cl, Br, 0.67, green (EtOH), 519, 36 27 (1); Et, H, H, NO2, iodide, 1, blue-violet (MeOH), 540, 59, 44.5 (3); Et, Br, H, Br, iodide, 1, amaranthine (MeOH), 511, 39, 15 (4); Et, H, H, H, iodide, 2, red-violet (MeOH), 500, 29, 16 (4); 2-pyridyl, H, Cl, Cl, iodide, 1, green-gold (MeOH), 525, 33.5, -; Ph, H, H, MeO, iodide, 3, violet (EtOH-Et2O), 519, 23.5, -; Et, H, H, Me, iodide, 6, red (EtOH), 523, 39, -.
IT **18018-26-3P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)
RN 18018-26-3 HCAPLUS
CN Benzimidazolium, 5,6-dichloro-2-[3-[5,6-dichloro-1-ethyl-3-(2-pyridyl)-2-benzimidazolinylidene]propenyl]-3-ethyl-1-(2-pyridyl)-, iodide (8CI) (CA INDEX NAME)



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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L5 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1968:115712 HCAPLUS
DN 68:115712
TI Cyanine dyes from 1-(2-pyridyl)-2-methylbenzimidazoles
IN Gandino, Mario; Merli, Paolo; Turilli, Oreste
PA Ferrania Societa per Azioni

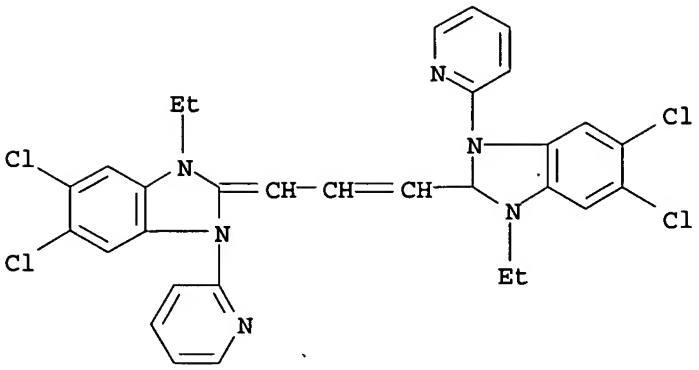
SO Fr., 5 pp.
CODEN: FRXXAK
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	FR 1491399		19670811			<--
	GB 1146465			GB		
PRAI	IT		19650521			

GI For diagram(s), see printed CA Issue.

AB 5,6-Dichloro-2-methyl-1-(2-pyridyl)benzimidazole (I) is a new intermediate for photographic sensitizing dyes of the general formula II, where X is S, Se, or N (2-pyridyl-substituted). A solution of 226 g. 2,4,5-Cl3C6H2NO2 and 169 g. 2-aminopyridine (III) is heated at 145° for 96 hrs., cooled, treated with 5 l. aqueous 15% NaOH, and distilled to remove III to give 4,5-dichloro-2-nitro-N-(2-pyridyl)aniline (IV), red-brown crystals, m. 156° (EtOH). A solution of 28.4 g. IV and 30 ml. HOAc is treated portionwise at 70-80° with 18.5 g. Zn powder, stirred for 2 hrs., treated with 20 ml. Ac2O, refluxed for 1 hr., filtered hot, cooled, made alkaline with aqueous NH4OH, and extracted with Et2O to give I, b22 290-330°, m. 127-9° (ligroine). A mixture of 2.78 g. I and 3 ml. EtI is heated in a sealed tube at 100° for 8 hrs., cooled, and the solid triturated with a mixture of Me2CO and Et2O to give I.EtI (V). A mixture of 2.17 g. V, 25 ml. PhNO2, and 5 ml. CH(OEt)3 is refluxed for 3 hrs., cooled, precipitated with Et2O, and recrystd. from EtOH to give II [X = 2-pyridyl-substituted N, R = R1 = Cl, Y = iodide], λmaximum 524 nm. A mixture of 2.17 g. V, 1.4 g. 2-(aldomethylene)-3-ethyl-5-methoxybenzoselenazole, and 20 ml. pyridine is refluxed, treated with 2 ml. Ac2O, cooled, poured into Et2O, and the precipitate dissolved in EtOH and precipitated with NH4ClO4 to give II (X = Se, R = H, R1 = MeO, Y = ClO4), λmaximum 547 nm. Similarly, other II (Y = iodide) are prepared (X, R, R1, and λmaximum in nm. given): S, Me, Me, 539; Se, Me, Me, 543; S, H, Cl, 530; Se, H, Me, 538; S, H, Me, 535. Also prepared is the carbocyanine dye from V and 2-(aldomethylene)-1-ethylpyrrolidine (λmaximum = 472 nm.) and the merocyanine dye from V and 5-(acetanilidomethylene)-3-ethyl-2-thio-4-oxazolidinone (λmaximum 497 nm.).

IT **18018-26-3P 18018-27-4P 18018-29-6P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)
RN 18018-26-3 HCAPLUS
CN Benzimidazolium, 5,6-dichloro-2-[3-[5,6-dichloro-1-ethyl-3-(2-pyridyl)-2-benzimidazolinylidene]propenyl]-3-ethyl-1-(2-pyridyl)-, iodide (8CI) (CA INDEX NAME)



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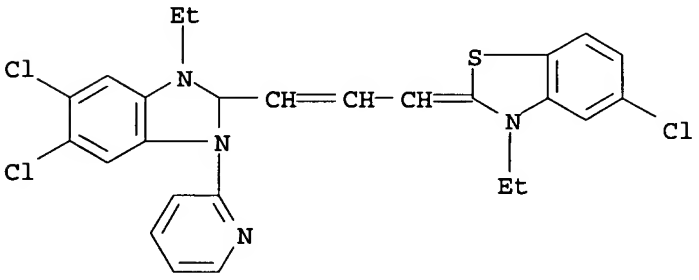
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 18018-27-4 HCAPLUS
CN Benzimidazolium, 5,6-dichloro-2-[3-(5-chloro-3-ethyl-2-benzothiazolinylidene)propenyl]-3-ethyl-1-(2-pyridyl)-, iodide (8CI) (CA INDEX NAME)



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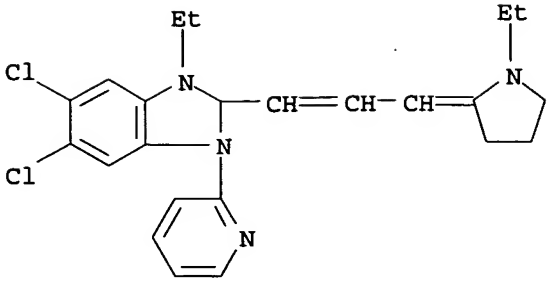
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 18018-29-6 HCAPLUS
CN Benzimidazolium, 5,6-dichloro-3-ethyl-2-[3-(1-ethyl-2-pyrrolidinylidene)propenyl]-1-(2-pyridyl)-, iodide (8CI) (CA INDEX NAME)



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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

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=> s l4 not l5
L6            2 L4 NOT L5

=> dis l6 bib abs

L6   ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   2001:792334  HCAPLUS
DN   135:344480
TI   Preparation of benzimidazole cyclooxygenase-2 inhibitors
IN   Okumura, Yoshiyuki; Murata, Yoshinori; Mano, Takashi
PA   Pfizer Inc., USA
SO   U.S., 29 pp.
     CODEN: USXXAM
DT   Patent
LA   English
FAN.CNT 2
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   US 6310079           B1     20011030    US 1999-244875          19990205
     US 2003013886        A1     20030116    US 2001-924351          20010808
     US 6713482           B2     20040330
PRAI WO 1998-IB164        W      19980211
     US 1999-244875       A3     19990205
OS   MARPAT 135:344480
GI
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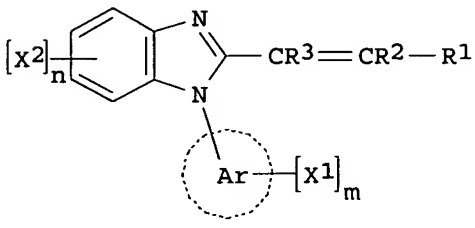

I

AB The title compds. [I; Ar = 6-membered monocyclic heteroaryl having one N

atom; X1, X2 = halo, alkyl, OH, etc.; R1 = (un)substituted Ph, 5-membered monocyclic heteroaryl; R2, R3 = H, halo, alkyl, etc.; or R1 and R2 can form, together with the carbon atom to which they are attached, a cycloalkyl ring; m = 0-5; n = 0-4] and their pharmaceutically acceptable salts, useful as analgesics and anti-inflammatory agents, were prepared Thus, refluxing N-(2-pyridyl)-o-phenylenediamine with (E)-cinnamoyl chloride in PhMe afforded 41% (E)-I [Ar = 2-pyridyl; X1, X2 = H; R1 = Ph; R1, R2 = H]. Some compds. I showed low IC50 values of 0.01-1.0 μM against COX-2.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	50.71	206.78

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-6.30	-6.30

STN INTERNATIONAL LOGOFF AT 15:08:19 ON 16 SEP 2004